

Audit

Report



YEAR 2000 COMPLIANCE OF THE
NAVY THEATER MISSION PLANNING CENTER

Report Number 99-168

May 24, 1999

Office of the Inspector General
Department of Defense

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Acronyms

TMPC
Y2K

Theater Mission Planning Center
Year 2000



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May 24, 1999

MEMORANDUM FOR COMMANDER IN CHIEF, U.S. PACIFIC COMMAND
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL
MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit Report on Year 2000 Compliance of the Navy Theater Mission
Planning Center (Report No. 99-168)

We are providing this report for your information and use. This report is one in a series being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor efforts to address the year 2000 computing challenge. Because this report contains no findings or recommendations, no written comments were required, and none were received. Therefore, we are publishing this report in final form.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Joseph Doyle at (703) 604-9348 (DSN 664-9348) or Mr. John Yonaitis at (703) 604-9340 (DSN 664-9340). See Appendix B for the report distribution. The audit team members are listed inside the back cover.

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Office of the Inspector General, DoD

Report No. 99-168
(Project No. 9CC-0086.06)

May 24, 1999

Year 2000 Compliance of the Navy Theater Mission Planning Center

Executive Summary

Introduction. This is one in a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the year 2000 computing challenge. For a list of audit projects addressing the issue, see the year 2000 webpage on the IGnet at <http://www.ignet.gov>.

Objectives. The overall audit objective was to assess the status of Military Department and Defense agency mission critical systems, identified by the U.S. Pacific Command and U.S. Forces Korea as being of particular importance to them in attaining compliance with the year 2000 conversion requirements. Specifically, we reviewed the progress of each system toward year 2000 compliance, testing and integration of modifications, and contingency plans. For this report, we reviewed the Navy Theater Mission Planning Center.

Results. The Navy Theater Mission Planning Center system was appropriately certified year 2000 compliant in December 1998. The program manager followed the Navy certification process and documented the system verification, testing, interfaces, and contingency documentation before certification. The implementation of the Theater Mission Planning Center system was completed at Navy cruise missile support activities in March 1999.

Management Comments. We provided a draft of this report on April 23, 1999. Because this report contains no findings or recommendations, written comments were not required, and none were received. Therefore, we are publishing this report in final form.

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Background

The Executive Order, "Year 2000 Conversion," February 4, 1998, mandates that Federal agencies do what is necessary to ensure that no critical Federal program experiences disruption because of the year 2000 (Y2K) computing problem. The Executive Order also requires that the head of each agency ensure that efforts to address Y2K issues receive the highest priority.

The Assistant Secretary of Defense (Command, Control, Communications and Intelligence) is the principal staff assistant responsible for the DoD Y2K management plan. The DoD Y2K Management Plan, version 2, December 1998, provides guidance for testing and certifying systems and preparing contingency plans for those systems, and stipulates the criteria that DoD Components must use to meet reporting requirements.

The U.S. Navy Year 2000 Action Plan, September 1998, provides the guidance for planning and implementing all information technology, software and systems in the Navy that face a Y2K problem. The Navy must ensure the Y2K readiness of the Navy Theater Mission Planning Center (TMPC).

The TMPC is a system of eight hardware and software subsystems used for planning Tomahawk cruise missile missions, providing precise targeting coordinates for precision guided missile missions, conducting post-strike analysis of battlefield imagery, and exploiting tactical and national imagery for effective combat missions. In addition, TMPC is located at cruise missile support activities and has operational mission capability for conventional and nuclear Tomahawk cruise missile variants.

Objectives

The overall objective was to assess the status of Military Department and Defense agency mission critical systems, identified by the U.S. Pacific Command and U.S. Forces Korea as being of particular importance to them, in attaining compliance with year 2000 conversion requirements. Specifically, we reviewed the progress of each system towards year 2000 compliance, testing and integration of modifications, and contingency plans. For this report, we reviewed the Navy TMPC system. See Appendix A for a discussion of the scope and methodology, and summary of prior coverage.

Year 2000 Compliance of the Navy Theater Mission Planning Center

The Navy TMPC system was appropriately certified as year 2000 compliant for both hardware and software in December 1998. The TMPC program manager followed the Navy certification process and documented the verification, testing, interfaces, and contingency documentation before certifying the TMPC system. The implementation of the TMPC system at Navy cruise missile support activities was completed in March 1999. As a result, the Navy has minimized the risk of year 2000 failure of the TMPC.

Y2K Compliance

The Navy TMPC program office, a part of the Naval Air Systems Command, is responsible for the TMPC system with oversight from Headquarters, Department of the Navy. Science Applications International Corporation, Arlington, Virginia, conducted the year 2000 tests of the TMPC subsystems and interfaces from September through December 1998, and certified the TMPC, subsystems and interfaces as year 2000 compliant on December 22, 1998.

TMPC Tests. The Science Applications International Corporation performed the software tests of the TMPC subsystems and interfaces using four major functional tests. The tests included simulating operations using seven critical dates; system initialization on critical dates; operations during five critical date transitions; and date entry, receipt, and internal usage. The TMPC subsystems and interfaces passed the tests and were determined to be Y2K compliant.

TMPC Interfaces. The five systems that interface with the TMPC system are the Tomahawk All-Up-Round System, the Weapon Control System, the modernized intelligence database, the National Imagery and Mapping Agency's earth and space links, and the Space and Naval Warfare Systems Command communication links. The Science Applications International Corporation successfully conducted Y2K interface testing for critical date entry, receipt, and usage for the five systems from September through December 1998 and determined them to be Y2K compliant with the TMPC.

Implementation of the Navy TMPC

The implementation of the Navy TMPC was completed at three cruise missile support activities. The activities where the TMPC was implemented were the Washington Planning Center, Washington Navy Yard, Washington, D.C., in December 1998; the Cruise Missile Support Activity Pacific, U.S. Pacific Command, Camp Smith, Hawaii, in January 1999; and the Cruise Missile Support Activity Atlantic, U.S. Atlantic Command, Norfolk, Virginia, in March 1999.

Contingency Management Plan

The Navy TMPC program management office identified risks to the TMPC system and developed two contingency management plans. The contingency management plans covered procedures for establishing and operating in a contingency management mode; and listed the Y2K risks such as power, hardware, and software failures. In addition, procedures for recovering lost or damaged data caused by data corruption or communication and interface failures, and procedures for returning to normal operating mode, were included in the plans. The plans also included the probability of occurrence and the corrective actions to minimize the impact of Y2K-related disruption.

Conclusion

The Navy TMPC program management office complied with DoD and Navy guidance in processing the TMPC system Y2K certification. The TMPC system hardware and software has been determined to be Y2K compliant. Therefore, we have no recommendations.

Appendix A. Audit Process

This is one in a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the year 2000 computing challenge. For a list of audit projects addressing the issue, see the Y2K web page on the IGnet at <http://www.ignet.gov>.

Scope

We reviewed and evaluated the Navy TMPC and interfacing systems. We visited the Naval Air Systems Command Program Management Office responsible for the TMPC. We met with TMPC officials to obtain the year 2000 status of the mission critical system. During our meetings, we obtained data pertaining to the TMPC system.

DoD-wide Corporate Level Government Performance and Results Act Goals. In response to the Government Performance Results Act, the Department of Defense has established 6 DoD-wide corporate level performance objectives and 14 goals for meeting these objectives. This report pertains to achievement of the following objectives and goals.

Objective: Prepare now for an uncertain future. **Goal:** Pursue a focused modernization effort that maintains U.S. qualitative superiority in key war fighting capabilities. (DoD-3)

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement of the following functional area objectives and goals.

- **Information Technology Management Functional Area.**
Objective: Become a mission partner. **Goal:** Serve mission information users as customers. (ITM-1.2)
- **Information Technology Management Functional Area.**
Objective: Provide services that satisfy customer information needs.
Goal: Modernize and integrate DoD information infrastructure. (ITM-2.2)
- **Information Technology Management Functional Area.**
Objective: Provide services that satisfy customer information needs.
Goal: Upgrade technology base. (ITM-2.3)

General Accounting Office High Risk Area. In its identification of high-risk areas, the General Accounting Office has specifically designated risk in resolution of the Y2K problem as high. This report provides coverage of that problem and the overall Information Management and Technology high-risk area.

Methodology

Audit Type, Dates, and Standard. We performed this program audit from March 16, 1999, to April 16, 1999, in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We did not use computer-processed data to perform this audit.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD and Science Applications International Corporation. Further details are available upon request.

Management Control Program. We did not review the management control program related to the overall audit objective because DoD recognized the Y2K issue as a material management control weakness area in the FY 1998 Annual Statement of Assurance.

Summary of Prior Coverage

The General Accounting Office and the Inspector General, DoD, have conducted multiple reviews related to Y2K issues. General Accounting Office reports can be accessed over the Internet at <http://www.gao.gov>. Inspector General, DoD, reports can be accessed over the Internet at <http://www.dodig.osd.mil>.

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Senate Committee on Governmental Affairs

Senate Committee on Intelligence

Senate Special Committee on the Year 2000 Technology Problem

House Committee on Appropriations

House Subcommittee on National Security, Committee on Appropriations

House Committee on Armed Services

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Committee on Government Reform

House Subcommittee on National Security, Veterans Affairs, and International
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